Unique Identification (UID) of Items

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What is UID?

"Unique identification is the ability to physically distinguish one item from another. Even though the items may be exact copies of each other, the unique identifier can be used to distinguish between them. We view a unique identifier as a set of data for assets that one, is globally unique and unambiguous; two, ensures data integrity and data quality throughout life; and three, supports multi-faceted business applications and users."

- Michael Wynne, USD(AT&L)

Three Most Frequently Asked Questions

- Where is the money to pay for UID?
  - You already have it (unfunded mandate)
  - BUT, cost is an unknown
    - Cost to change drawings, tech orders
    - Cost to develop data system interfaces
    - Trading off warfighting capability is unacceptable
- How can I get out of it?
- What does birth control have to do with improved asset management?
  - You can't!
  - Which leads to other issues that we'll discuss in this session…

UID Timeline

- UID policy issued (eff 1 Jan 04) 29 Jul 03
- DFARS Rule published in Federal Register 10 Oct 03
- UID policy revision #1 26 Nov 03
- UID policy revision #2 22 Dec 03
- Comments closed on revision #2 1 Mar 04
- Final DFARS Rule Sep 04
- UID policy on marking in-service parts 3 Sep 04
- UID requirements applicable to GFP 1 Jan 05

- Policy guidance still in development
  - Results in clarifications & changes
  - Implementation document with development is always challenging

Meanwhile, UID policy continues to evolve…

UID Role - Business Enterprise Architecture

Improve Data Quality and Interoperability

Enhance Total Asset Visibility

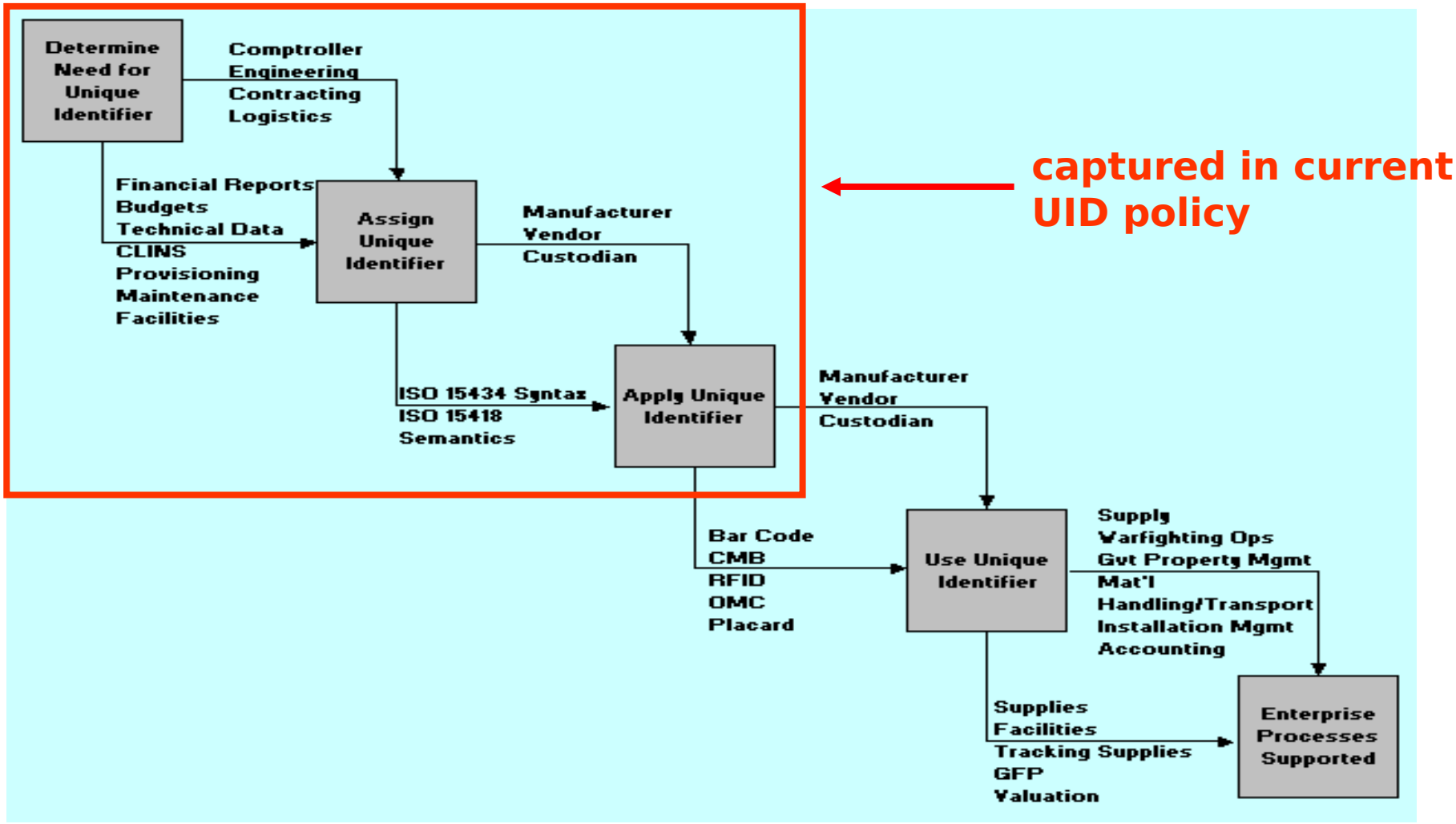
Education of the workforce still moving at a slow pace

- Word needs to reach all functional communities
- Need to understand that UID is not a “contracting” issue
- Ensure awareness and understanding up and down the mgmt chain

Improve Life-Cycle Item Management

Achieve Clean Audit Opinions on Property, Plant and Equipment &

UID Interface Flow



Create and Generate the UID

- The UID is derived from discrete component data elements (shown below, including an IAC).
- The UID is not required to be marked on the item as a separate data element.

UID Construct #1[1]

EID (MFR)0CVA5

Serial No. (SER)786950

UID Construct #1

D 0CVA5786950

IAC CAGE Serial No.

UID Construct

EID (12V)194532636

Orig. Part No. (1P)1234

Serial No. (S)786950

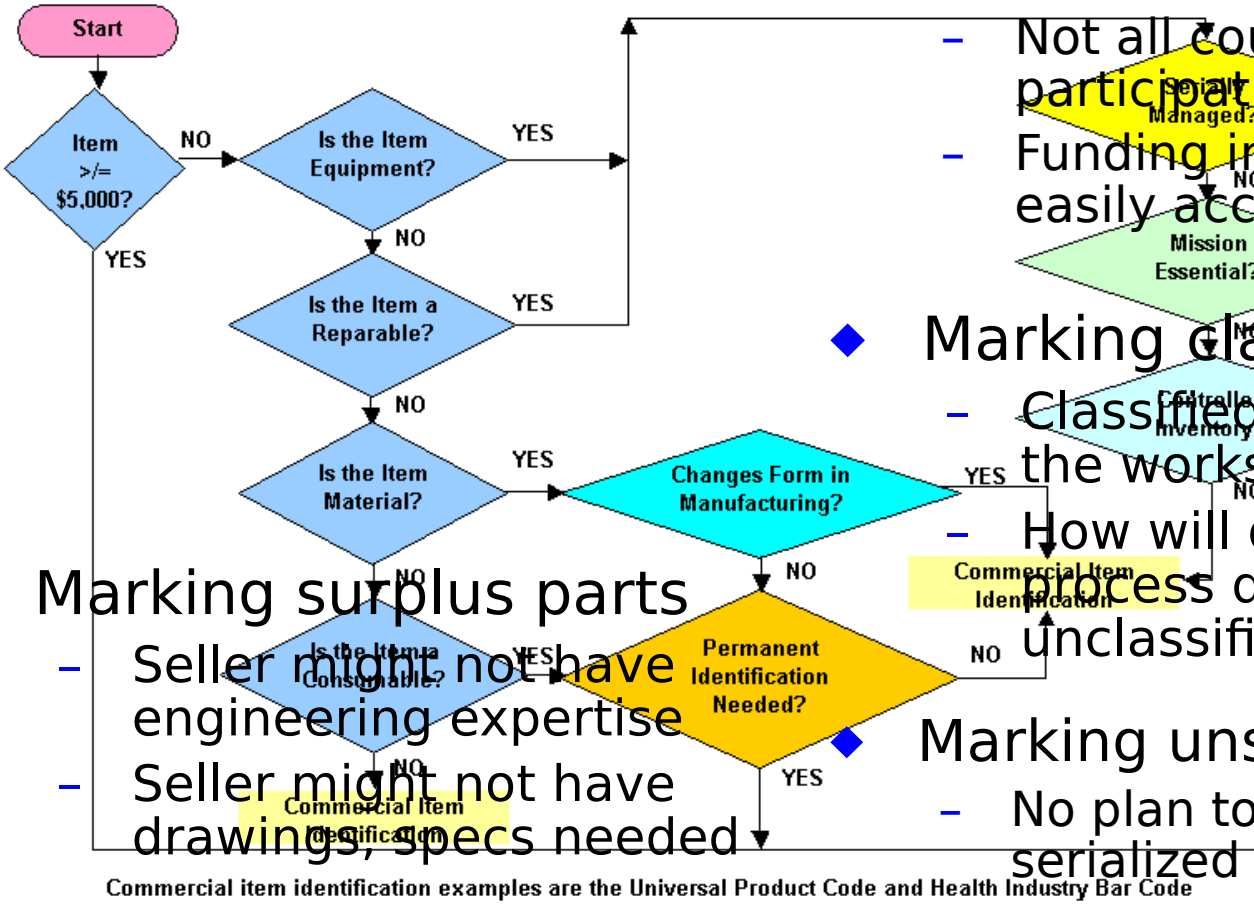
UID Construct #2

UN194532636123478 6950

IAC DUNS Orig. Part No. Serial No.

*If the enterprise chooses to mark the UID as a discrete data element on the item, the component data elements must (still) also be marked on the item as discrete data elements, in addition to the UID.

Which Items Require UID?



- Marking surplus parts
  - Seller might not have engineering expertise
  - Seller might not have drawings, specs needed
- Marking FMS items
  - Not all countries are participating in UID
  - Funding impacts are not easily accommodated
- Marking classified items
  - Classified registry still in the works
  - How will data submission process differ from unclassified process?
- Marking unserialized parts
  - No plan to use the UID for serialized items
  - Unnecessary cost without corresponding benefit

UID Reporting in the Supply Chain

Product Data	Supply Chain	Unique Items	UID **
Enterprise			
Prime	PN 200H0028	Item Marking: EI 19453263 PN 200H0028 SN 003896*	UN19453263200H0028003896
Tier 1	PN 210H0611	Item Markings: EI 040535536 PN 210H0611 SN 006392*	UN040535536210H0611006392
Tier 2	PN 216H1439	Item Markings: EI 080907280 PN 216H1439 SN 020890*	UN080907280216H1439020890
Tier 3	PN 218H2861	Item Markings: EI 083949107 PN 218H2861 SN 105742*	UN083949107218H2861105742

End Item Specs

Subassembly Specs

Component Specs

Part Specs

Delivery to Govt

End Item

Spares

List of Hardware UIDs (Optional)

Marking commercial items within an end item

How far down to implement UID

How and when to make the call

Commercial Items UID policy requirements creep into FAR Part 12

Some vendors adopt a "take it or leave it" attitude

GFE Items

Who owns the items during contract performance?

Do we mark all the items?

When do we mark them?

* Serialized within the part number using DUNS

UID = Unique Identifier; EI = Enterprise Identifier
PN = Part Number; SN = Serial Number

**UN = Issuing Agency Code for DUNS

UID Valuation in the Supply Chain

Supply Chain

Items Qualifying for UID

UID ** Deliverables

Item Marking

EI 194532636 PN 200H0028 SN 003896*

Delivery to Govt

End Item

UN194532636200H002800 3896

CLIN Valuation for end item

Item Markings

EI 040535536 PN 210H0611 SN 006392*

Delivery to Govt

Spares

UN040535536210H061100 0892

CLIN Valuation - if delivered as separate end item

Item Markings

EI 080907280 PN 216H1439 SN 020890*

Delivery to Govt

Spares

UN080907280216H143902 0890

CLIN Valuation - if delivered as separate end item

Item Markings

EI 083949107 PN 218H2861 SN 105742*

Delivery to Govt

Spares

UN083949107218H28611 05742

CLIN Valuation - if delivered as separate end item

Reporting/Not reporting acquisition value

- Some component parts are bought as end items and as embedded parts
- Benefit of collecting "partial" valuation data is not clear

UID = Unique Identifier; EI = Enterprise Identifier; PN = Part Number; SN = Serial Number

*Serialized within the part number using DUNS

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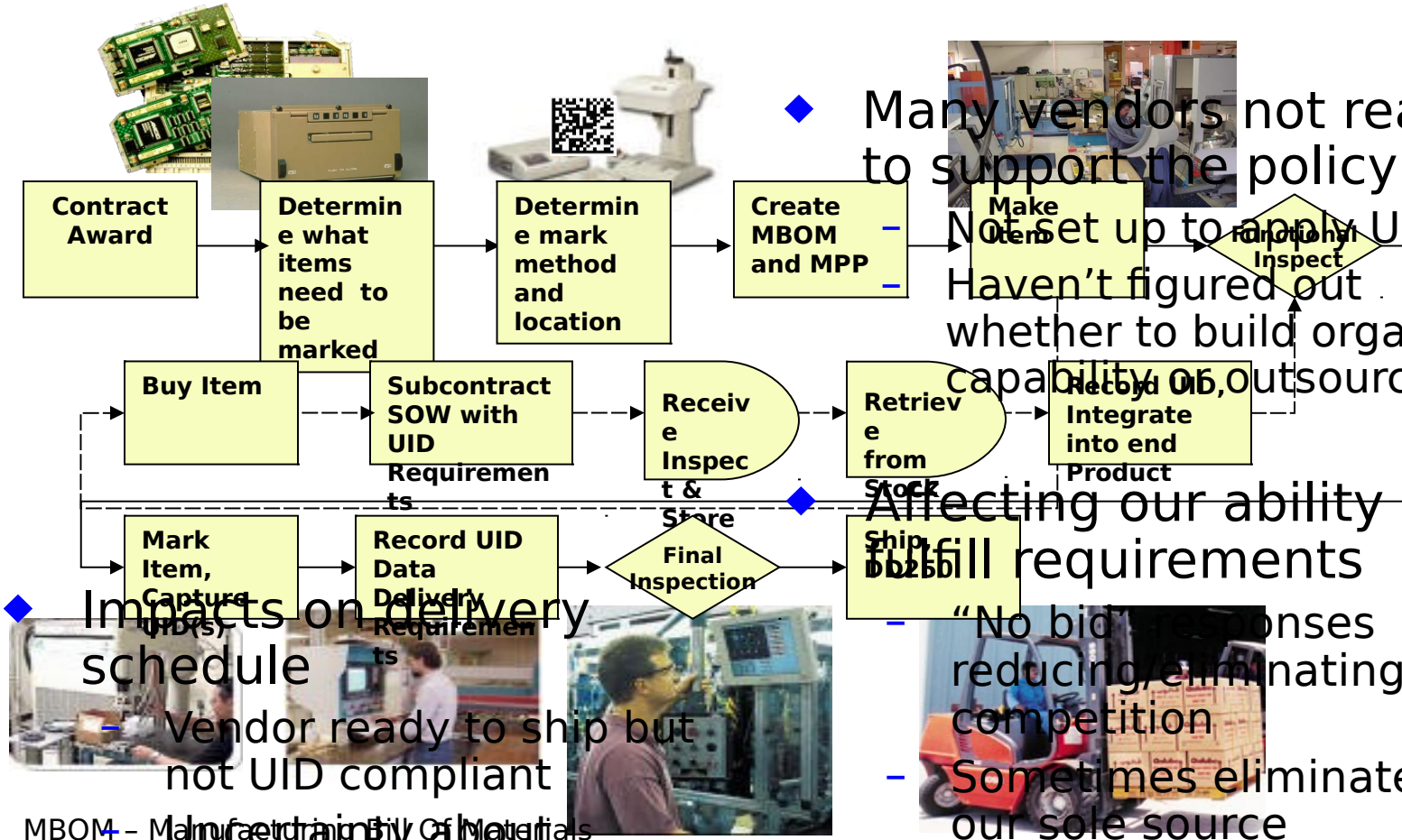
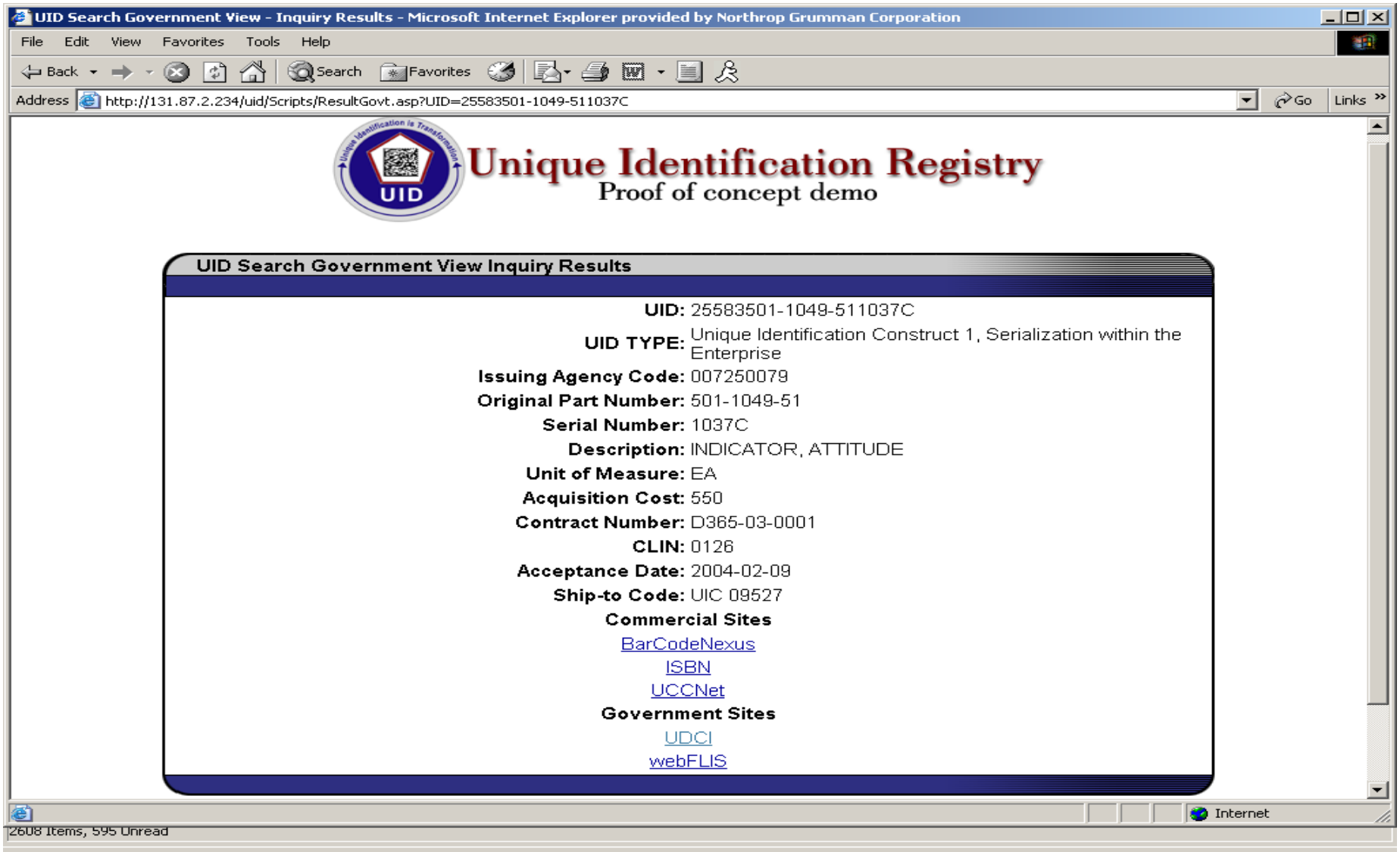
UID Vendor Perspective



- Many vendors not ready to support the policy
  - Not set up to apply UID
  - Haven't figured out whether to build organic capability or outsource
- Affecting our ability to fulfill requirements
- Impacts on delivery schedule
  - Vendor ready to ship but not UID compliant
  - Uncertainty about authority to handle like other material deficiencies
  - "No bid" responses reducing/eliminating competition
  - Sometimes eliminates our sole source
  - Some vendors adopt a "take it or leave it" attitude

MBOM – Manufacturing Bill Of Materials
MPP – Manufacturing Process Planning

UID Registry – Inquiry screen



Requirement for UID

- All program managers for new equipment, major modifications, and reprocurements of equipment and spares shall plan to apply Unique Identification (UID) on tangible items
- UID is a mandatory DoD requirement for all solicitations issued on or after January 1, 2004
- Specific guidance related to UID requirements can be found by referring to the following sources:
  - DFARS interim rules issued 10 Oct 03 & 22 Dec 03
  - DoD Guide to UID Version 1.4
  - Coordinated Policy Guidance
  - www.acq.osd.mil/uid

Current UID Activity

- Two interim rules published so far
  - Additional policy update issued 3 Sep
  - Some issues still need clarification
- OSD guidance continues to evolve
  - Version 1.4 of DoD Guide to UID published on 20 Apr 04
  - Handling of classified items still an issue
  - Handling of FMS items also continues to drive questions
  - Marking embedded parts within an end item
- Draft policy for marking in-service parts out for comment
- Implementation plan for depot manufactured items
- Expect further policy guidance to emerge as DoD working groups continue to work issues
  - Recurring communications with the DoD PMO
  - JACG Working Group recently established

UID Outcomes “Down the Road”

- Comprehensive, timely data about each uniquely identified item throughout the supply chain
  - Generation, collection and analysis of maintenance data
  - End-to-end tracking and traceability of unique items
  - Reliability and maintainability information on each item throughout its life cycle
- Improved supply chain efficiency
  - Administrative cost reduction
  - Reduced stock levels
  - Simplicity, standardization, speed and certainty in automated data capture and electronic information exchange
- Integrated transportation and movement of individually identified items
- Leveraged commercial technologies and practices

What Do We Do Next?

- The Bad News…
  - Good intentions and ongoing effort that will bring results tomorrow don’t help folks who have a problem TODAY
- The Good News…
  - UID PMO is open and cooperative
  - Working with us to confront and solve our issues

AFMC UID Points of Contact

Direct questions to:

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Questions?

Backups

UID “Pedigree” Data

End Item Data (15)

- UID (Concatenated)
- Descriptive Data
  - UID Data Elements (5)
  - Item Description
  - Unit of measure
- Acquisition Data
  - Contractor
  - Contract Number
  - CLIN/SLIN/ELIN
  - Price
  - Acceptance Code (identifies acceptor)
  - Acceptance Date
  - Ship to code

Embedded Items of End Items (10)

- UID (Concatenated)
- Descriptive Data
  - UID Data Elements (5)
  - Item Description
  - Unit of measure
- Parent UID as of delivery date
- GFP flag

Item Tracking (TBD)

- Current parent
- “As of” date

DoD UID Equivalents – Criteria

Criteria for Determining DoD UID Equivalence

- Must contain an enterprise identifier, which is assigned by a registration or controlling authority
- Must uniquely identify an individual item within an enterprise identifier, product or part number
- Must have an existing Data Identifier (DI) or Application Identifier (AI) listed in ANSI MH10.8.2, Data Identifier and Application Identifier Standard

DoD UID Equivalents

Identifiers Meeting the Equivalence Criteria

- Global Individual Asset Identifier (GIAI), EAN.UCC (Application Identifier: 8004; Data Identifier: 1B)
- Global Returnable Asset Identifier (GRAI), EAN.UCC (Application Identifier: 8003; Data Identifier: 1B or 5B)
- Vehicle Identification Number (VIN), ISO 3779 (Data Identifier: I)
- Electronic Serial Number (ESN, for cellular telephones only), TIA (Data Identifier: 22S; Application Identifier: 8002)

Issue: None
Impact: Enables the use of existing unique identifiers in commercial use.

Wide Area Work Flow (WAWF) Expected Timeline

2003 2004

OCT	NOV	DEC	JAN	FEB	MAR	APR
Requirements Defined	Design Solution Engage Vendors	Development	Development	Unit Test Point-to-Point Test	Integration End-to-End Test	Dry Run IOC
	WAWF DEBX	WAWF DEBX Repository	WAWF DEBX Repository	WAWF DEBX Repository		

UID Collaborative Solution Issue

- Using the syntax of ISO/IEC 15434, the collaborative solution provides for three interoperable formats:

Formats:

(2-digit numeric format code requested of SC 31 to replace DD)

Text Element Identifiers:

[)>[RS]*DD*[GS]MFR 0CVA5[GS]SER 674A36458[RS][EOT]

EAN.UCC: Application Identifiers

[)>[RS]05[GS]8004 06141411A0B9C3D6[RS][EOT]

MH 10.8.2: Data Identifiers

[)>[RS]06[GS]17V0CVA5[GS]1P1234[GS]S786950[RS][EOT]

EID	(17V)0CVA5
Original Part Number	(1P)1234
Serial Number	(S)786950

- Until SC 31 assigns a format code for use of TEIs use interim DoD format code “DD” in ISO/IEC 15434 syntax

Key DoD & External UID Stakeholders

DoD Stakeholders

- Office Secretary of Defense
- All Services
- Joint Staff
- Defense Contract Management Agency
- Defense Logistics Information Service
- UK MoD

UID background materials and actions items are available
www.acq.osd.mil/uid

Industry Stakeholders

- Aerospace Industries Association (AIA)
- Government Electronics Association (GEIA)
- Uniform Code Council (UCC)
- Air Transport Association (ATA)
- Various AIT suppliers
- New York City Transit Authority
- UK Council for Electronic Business